Metz Metallurgical 02-890C-34-AA

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HRS

	S	S^2
Groundwater Route Score (S_{gw})	51.49	2651.22
Surface Water Route Score (S_{sw})	11.19	125.22
Air Route Score (S_a)	0	0
$S_{gw}^2 + S_{sw}^2 + S_a^2$		2776.44
$\sqrt{S_{gw}^2 + S_{sw}^2 + S_a^2}$		52.69
$\sqrt{S_{gw}^2 + S_{sw}^2 + S_a^2} / 1.73 = S_M =$		30.46

WORKSHEET FOR COMPUTING S_M

PRO

	S	S^2
Groundwater Route Score (S_{gw})	72.53	5260.60
Surface Water Route Score (S_{sw})	14.69	215.80
Air Route Score (S_a)	50.26	2526.07
$S_{gw}^2 + S_{sw}^2 + S_a^2$		8002.47
$\sqrt{S_{gw}^2 + S_{sw}^2 + S_a^2}$		89.46
$\sqrt{S_{gw}^2 + S_{sw}^2 + S_a^2} / 1.73 = S_M =$		51.71

WORKSHEET FOR COMPUTING S_M

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02-8906-34-PA

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Surface Water Route Work Sheet

	Rating Factor	Assigned Value (Circle One)	Multi-plier	HRS	Max. Score	PRO
1	Observed Release	(0) 45	1	0	45	45
	If observed release is given a value of 45, proceed to line 4. If observed release is given a value of 0, proceed to line 2.					
2	Route Characteristics					
	Facility Slope and Intervening Terrain	0 (1) 2 3	1	1	3	1
	1-yr. 24-hr. Rainfall	0 1 (2) 3	1	2	3	2
	Distance to Nearest Surface Water	0 1 2 (3)	2	6	6	6
	Physical State	0 1 2 (3)	1	3	3	3
	Total Route Characteristics Score			12	15	12
3	Containment	0 1 2 (3)	1	3	3	3
4	Waste Characteristics					
	Toxicity/Persistence	0 3 6 9 12 15 (18)	1	18	18	18
	Hazardous Waste Quantity	0 1 (2) 3 4 5 6 7 8	1	2	8	3
	Total Waste Characteristics Score			20	26	21
5	Targets					
	Surface Water Use	0 1 (2) 3	3	6	9	6
	Distance to a Sensitive Environment	0 1 (2) 3	2	4	6	4
	Population Served/Distance to Water Intake Downstream	(0) 4 6 8 10 12 16 18 20 24 30 32 35 40	1	0	40	0
	Total Targets Score			10	55	10
6	If line 1 is 45, multiply 1 x 4 x 5 If line 1 is 0, multiply 2 x 3 x 4 x 5			7200	64,350	9450
7	Divide line 6 by 64,350 and multiply by 100		S_{sw} =	11.19		14.69

O = HRS

□ = PRO

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Air Route Work Sheet

Rating Factor	Assigned Value (Circle One)	Multiplier	HRS	Max. Score	PRO
[1] Observed Release	(0) [45]	1		45	45
Date and Location: AUGUST 10, 1985					
Sampling Protocol: OBSERVATION OF FUMING ACID TANK					
If line [1] is 0, the S_a = 0. Enter on line [5] If line [1] is 45, then proceed to line [2]					
[2] Waste Characteristics					
Reactivity and Incompatibility	0 1 [2] 3	1		3	2
Toxicity	0 1 2 [3]	3		9	9
Hazardous Waste Quantity	0 1 2 [3] 4 5 6 7 8	1		8	3
	Total Waste Characteristics Score			20	14
[3] Targets					
Population Within 4-Mile Radius	0 9 12 15 18 [21] 24 27 30	1		30	21
Distance to Sensitive Environment	0 1 [2] 3	2		6	4
Land Use	0 1 2 [3]	1		3	3
	Total Targets Score			39	28
[4] Multiply [1] x [2] x [3]				35,100	17640
[5] Divide line [4] by 35,100 and multiply by 100		S_a =			50.26

O = HRS

□ = PRO

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Ground Water Route Work Sheet

Rating Factor	Assigned Value (Circle One)	Multiplier	HRS	Max. Score	PRO
1 Observed Release	(0) 45	1	0	45	45
If observed release is given a score of 45, proceed to line 4. If observed release is given a score of 0, proceed to line 2.					
2 Route Characteristics					
Depth to Aquifer of Concern	0 1 2 (3)	2	6	6	6
Net Precipitation	0 1 (2) 3	1	2	3	2
Permeability of the Unsaturated Zone	0 (1) 2 3	1	1	3	1
Physical State	0 1 2 (3)	1	3	3	3
Total Route Characteristics Score			12	15	12
3 Containment	0 1 2 (3)	1	3	3	3
4 Waste Characteristics					
Toxicity/Persistence	0 3 6 9 12 15 (18)	1	18	18	18
Hazardous Waste Quantity	0 1 (2) 3 4 5 6 7 8	1	2	8	3
Total Waste Characteristics Score			20	26	21
5 Targets					
Ground Water Use	0 1 (2) 3	3	6	9	9
Distance to Nearest Well/Population Served	0 4 6 8 10 12 16 18 20 24 30 32 (35) 40	1	35	40	35
Total Targets Score			41	49	44
6 If line 1 is 45, multiply 1 x 4 x 5 / If line 1 is 0, multiply 2 x 3 x 4 x 5			29520	57,330	41580
7 Divide line 6 by 57,330 and multiply by 100		S_{gw} = 51.49			72.53

O = HRS

□ = PRO